## ABSTRACT OF THE DISCLOSURE

A process for forming a thermally enhanced Chip On Board semiconductor device (10) with a heat sink (30) is described. In one aspect, a thermally conducting filled gel elastomer material (50) or a silicon elastomeric material or elastomeric material, if the material is to be removed, is applied to the die surface (18) to which the heat sink is to be bonded. During the subsequent glob top application and curing steps, difficult-to-remove glob top material (38) which otherwise may be misapplied to the die surface adheres to the upper surface of the elastomer material. The elastomer material is removed by peeling prior to adhesion bonding of the heat sink to the die.

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